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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,162	08/22/2003	Keith C. Thomas	P1976US00	9183
24333	7590	11/29/2005	EXAMINER	
GATEWAY, INC. ATTN: SCOTT CHARLES RICHARDSON 610 GATEWAY DRIVE MAIL DROP Y-04 N. SIOUX CITY, SD 57049			HUNNINGS, TRAVIS R	
			ART UNIT	PAPER NUMBER
			2632	
DATE MAILED: 11/29/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/646,162

Applicant(s)

THOMAS, KEITH C.

Examiner

Travis R. Hunnings

Art Unit

2632

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input checked="" type="checkbox"/> Other: <u>Supplement</u>             |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 5, 6, 8-10 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Fantom Orb Disk Drive (Fantom; [www.fantomdrives.com/support/manuals/orb\\_supplement.pdf](http://www.fantomdrives.com/support/manuals/orb_supplement.pdf)).

Regarding claim 1, Fantom discloses *Orb Drive Supplemental Information Guide* that has the following claimed limitations:

The claimed activity indicator visible from a panel of the electronic device, the activity indicator configured to provide a continuous indication of the presence of a first continuous operating condition associated with the electronic device is met by the status light (Front Panel drawing) indicating that the drive is ready by a solid green light (During Operation section);

The claimed activity detection circuit coupled to the activity indicator, the activity detection circuit configured to generate an activity signal when detecting a second periodic operating condition associated with the component and to communicate the

activity signal to the activity indicator would have been inherent in the device to operate the functions of detecting the drive being on and loading/unloading/using the disk and altering the status light to reflect the current condition (During Operation section);

The claimed activity indicator is interrupted from continuously indicating the presence of the first continuous operating condition by the activity signal thereby producing an indication of the second periodic operating condition is met by the flashing amber light to indicate that the disk is loading or in use which would interrupt the constant green light (During Operation section).

Regarding claim 2, the claimed first continuous operating condition including a power-on operating condition and the second periodic condition including a hard disk drive operating condition is met by the green light indicating power being present to the device and the flashing amber light indicating data being written or read on the ORB disk (LED Indicator Definitions section). One of ordinary skill in the art would have considered reading or writing data to an ORB disk to be a hard disk drive operating condition because hard disk drives also read or write data to a disk.

Regarding claim 5, the claim is interpreted and rejected as claim 1 stated above.

Regarding claim 6, the claim is interpreted and rejected as claim 2 stated above.

Regarding claim 8, the claimed continuous indication by the activity indicator is characterized by illumination of the activity indicator and interruption of the continuous indication of the activity indicator is characterized by extinguishing the activity indicator is met by the steady green light indicating that there is power to the device and the flashing amber light indicating the reading or writing of data to the disk (LED Indicator Definitions section). One of ordinary skill in the art would have considered the flashing amber light to be extinguishing the activity indicator.

Regarding claim 9, The claimed activity being configured to provide a continuous indication of the presence of a power-on operating condition of the electronic device is met by the status light (Front Panel drawing) indicating that the drive is ready and powered on by a solid green light (During Operation section);

The claimed activity detection circuit coupled to the activity indicator, the activity detection circuit configured to generate an activity signal when detecting an intermittent operating condition associated with activity by the storage device and to communicate the activity signal to the activity indicator would have been inherent in the device to operate the functions of detecting the drive being on and loading/unloading/using the disk and altering the status light to reflect the current condition (During Operation section);

The claimed activity indicator is interrupted from continuously indicating the presence of the power-on operating condition of the electronic device by the activity signal to thereby produce an indication of the intermittent operating condition of the

electronic device is met by the flashing amber light to indicate that the disk is loading or in use which would interrupt the constant green light (During Operation section).

Regarding claim 10, the claimed activity by the storage device comprises transferring data to or from the storage device is met by the flashing amber light indicating the reading or writing of the disk (LED Indicator Definitions section).

Regarding claim 12, the claim is interpreted and rejected as claim 8 stated above.

***Claim Rejections - 35 USC § 103***

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 4, 11 and 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Fantom Orb Disk Drive (Fantom; [www.fantomdrives.com/support/manuals/orb\\_supplement.pdf](http://www.fantomdrives.com/support/manuals/orb_supplement.pdf)).

Regarding claim 4, it would have been obvious to one of ordinary skill in the art to use the status light as taught by Fantom to indicate the status of any disk drive on a computer system, including a hard disk drive.

Regarding claim 11, the claim is interpreted and rejected as claim 4 stated above.

Regarding claim 13, the claimed continuous indication by the activity indicator is characterized by illumination of the activity indicator and interruption of the continuous indication of the activity indicator is characterized by extinguishing the activity indicator is met by the steady green light indicating that there is power to the device and the flashing amber light indicating the reading or writing of data to the disk (LED Indicator Definitions section). One of ordinary skill in the art would have considered the flashing amber light to be extinguishing the activity indicator.

It would have been obvious to one of ordinary skill in the art to use the status light as taught by Fantom to indicate the status of any disk drive on a computer system, including a hard disk drive.

5. Claims 1-7 and 9-11 are again rejected under 35 U.S.C. 103(a) as being unpatentable over Bush et al. (Bush; US Patent 5,214,762) for the record.

Regarding claim 1, Bush discloses Disk Drive Activity Indicator that has the following claimed subject matters:

The claimed activity indicator visible from a front panel of the electronic device is met by the LED mounted on the front panel of a desktop computer (abstract);

The claimed activity indicator configured to provide a continuous indication of the presence of a first continuous operating condition associated with the electronic device is met by the LED being triggered in response to I/O operations involving the hard drive (abstract) and therefore by definition the LED is not triggered (turned off) during the period when the computer is on but there is no activity involving the hard drive. Therefore the LED is continually indicating that there is no activity in the hard drive while it is off;

The claimed activity detection circuit coupled to the activity indicator is met by the activity indicator triggering logic (46);

The claimed activity detection circuit configured to generate an activity signal when detecting a second periodic operating condition associated with the electronic component and to communicate the activity signal to the activity indicator is met by the triggering logic on the motherboard detecting the I/O operations involving the hard drive and activating the LED by use of a retriggerable monostable multivibrator (abstract);

The claimed activity indicator being interrupted from continuously indicating the presence of the first continuous operating condition by the activity signal, thereby producing an indication of the second periodic operating signal is met by the LED being triggered (turning on) when the triggering logic detects an I/O function relating to the hard drive (abstract).

See figure 4.

The indications of the disclosed invention and claimed invention both correspond to the same events; the activation and non-activation of an electronic device such as a



hard disk drive. The choice of indications themselves, whether they are continuously on and interrupted on activation or continuously off and turned on during activation, does not merit novel inventive material. Therefore it would have been obvious to one of ordinary skill in the art to have chosen either of the above mentioned indication choices.

Regarding claim 2, the claimed first continuous operating condition including a power-on operating condition is met by the LED not being triggered while the computer is powered-on and there is no access to the hard disk drive (see rejection to claim 1 stated above). The claimed second periodic operating condition including a hard disk drive operating condition is met by the LED being triggered when the hard drive is accessed (abstract).

Regarding claim 3, the claimed activity indicator including a single color LED is met by the LED mounted on the front panel of the desktop computer. The LED has only two possible states; an on-state and an off-state. Therefore it would have been obvious to one of ordinary skill in the art to use a single-color LED to reduce costs because the extra functionality of a multi-color LED would not be needed or desired.

Regarding claim 4, the claimed electronic device including a computer system and the component including a hard disk drive is met by the desktop computer having a hard disk drive activity indicator such as an LED mounted on the front panel remote from its associated hard disk drive (abstract).

Regarding claim 5, the claim is interpreted and rejected as claim 1 stated above.

Regarding claim 6, the claim is interpreted and rejected as claim 2 stated above.

Regarding claim 7, the claim is interpreted and rejected as claim 3 stated above.

Regarding claim 9, the claim is interpreted and rejected as claim 1 stated above.

Regarding claim 10, the claim is interpreted and rejected as claim 2 stated above.

Regarding claim 11, the claim is interpreted and rejected as claim 4 stated above.

### ***Response to Arguments***

6. Applicant's arguments filed 19 January 2005 have been fully considered but they are not persuasive. The applicant states the following arguments:

**A:** With respect to rejected claim 1, applicant argues that a user of the Bush system, viewing the LED of the disk drive activity indicator, does not know if the LED is “turned off” because there is presently no disk drive activity, or is “turned off” because

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the entire computer system is simply "turned off". Absent the presence of some disk drive activity, the Bush indicator is not only "turned off" when there is no disk drive activity, but is also "turned off" when the computer is "turned off". Thus, unless there is currently some disk drive activity actually occurring, one has no idea from the Bush indicator whether the computer is "on" or "off".

**B:** With respect to rejected claim 1, applicant argues that the Bush patent would not lead one of ordinary skill in the art to consideration of operating conditions of both "an electronic device" and "a component of the electronic device", as required by claim 1, and the rejection of the office action appears to reflect this, as only the operating states of the disk drive (and not the operating condition of the entire Bush computer system) are discussed. But, as noted above, the user of the Bush system is not provided with any information as to whether the computer system is turned on or turned off, unless, and only when, disk drive activity is actually occurring.

**C:** With respect to rejected claim 1, applicant argues that the claimed invention is not merely another equivalent "choice" that one of ordinary skill in the art could make for indicating disk drive activity, as the function of the claimed system provides additional capabilities as compared to the Bush system. In particular, the disk drive activity indicator system taught by Bush, and its manner of indicating disk drive activity, is completely incapable of providing an effective indication of the "power on" or "power off" status of the Bush system, as the disk drive activity indicator only illuminates during the

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time that disk drive accesses or interrupts are actually occurring. More significantly, Bush discloses that the disk drive activity indicator is "off" during times that specific disk activity is not occurring, but would also be "off" when the Bush system is powered down (and thus there is no disk activity because the power to the system is cut off). As a result, a user of the Bush system would not be able to look at its disk drive activity indicator and be able to tell if the system is powered up, unless disk activity happened to coincide with the precise time that the user looked at the disk drive activity indicator. In contrast, with the system of claim 1, one simply has to look at the claimed indicator to see if power is being supplied to the system, and if the indicator is periodically being interrupted (such as by flashing off), one also knows that disk activity is occurring.

**D:** With respect to rejected claim 1, applicant argues that one of ordinary skill in the art, considering the Bush patent and the knowledge that heretofore power indicators and disk activity indicators are separate elements, would presume that the Bush system employs a separate power on indicator, and thus any attempt to further modify the Bush disk drive activity indicator to also indicate the power status of the system would be superfluous.

**E:** With respect to rejected claim 8, applicant argues that the Bush patent does not provide the user with the same amount of information as the claimed limitation of illuminating the light during the first continuous operating condition and extinguishing the light during the periodic second operating condition.

**F:** With respect to rejected claim 9, applicant argues that the Bush patent does not provide a continuous indication of the presence of a power-on operating condition of the electronic device.

Responses:

Regarding arguments A, B, D and E, claim 1 states “the activity indicator configured to provide a continuous indication of the presence of a first continuous operating condition associated with the electronic device” which is clearly met by the system of Bush. The lack of indication as set forth by Bush is still a form of indication to the user that a continuous operating condition associated with the electronic device is occurring, specifically that currently no I/O writes are being performed by the computer (electronic device) on the hard drive (component of the electronic device). There is no mention in the claim language of claim 1 of a limitation to provide indication of a power on or power off condition.

Regarding argument C, again there is no mention in the claim language of claim 1 of a limitation to provide indication of a power on or power off condition. The indications of the disclosed invention and claimed invention both correspond to the same events; the activation and non-activation of an electronic device such as a hard disk drive. The choice of indications themselves, whether they are continuously on and interrupted on activation or continuously off and turned on during activation perform the

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same functionality and indication to the user. Therefore it would have been obvious to one of ordinary skill in the art to have chosen either of the above mentioned indication choices.

Regarding argument E, the argument is moot in light of the new rejection stated above.

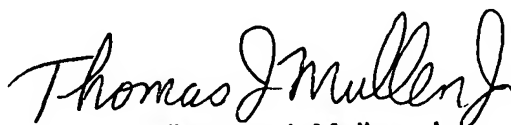
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Travis R. Hunnings whose telephone number is (571) 272-3118. The examiner can normally be reached on 8:00 am - 5:00 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel J. Wu can be reached on (571) 272-2964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TRH

  
Thomas J. Mullen, Jr.  
Primary Examiner  
Art Unit 2632

11-28-05